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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/031,209

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A Neil Boucher

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2478

7590

01/14/2004

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EXAMINER

JACKSON, CORNELIUS H

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/031,209

Applicant(s)

BOUCHER ET AL.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7,8,10-14,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,10-14,17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
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TECHNOLOGY CENTER 2800

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgment***

1. Acknowledgment is made that applicant's Amendment, filed on 06 October 2003, has been entered. Upon entrance of the Amendment, claims 1, 7, 8, 10, 12, 17 and 18 were amended and claims 3-6, 9, 15, 16 and 19-24 were cancelled. Claims 1, 2, 7, 8, 10-14, 17 and 18 are now pending in the current application.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8, 10-14, 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1-8, 10-14, 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite since it is not defined how or what the metal layer is opaque and/or reflective to.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, since the value of "x" is indefinite.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 7, 8, 10, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Trost et al. (5341238). Regarding claim 1, Trost et al. disclose an optical filter **Fig. 4-6** comprising: an opaque, reflective metal layer **34**; a dielectric spacer **36 (or 40)** layer deposited on the metal layer; a dielectric stack **38 (or 42, 44,46,48,64)** of alternating relatively high and low refractive index layers deposited on the spacer layer; and the thickness of the dielectric spacer layer and the high and low refractive index layers being selected such that the filter has a resonant wavelength, at which wavelength incident radiation is channeled into, and absorbed by, the metal layer **34**, **see col. 4, line 27-col. 8, line 12.**

Regarding claim 2, Trost et al. disclose the dielectric spacer layer **36 (or 40)** has the same composition and thickness as one of the constituent layers in the dielectric stack **38 (or 42, 44,46,48,64)**, **see col. 4, line 56-col. 5, line 31.**

Regarding claims 7, 8 and 10, Trost et al. disclose all the stated limitations, **see col. 5, lines 27-48, col. 6, line 30-39 and col. 7, lines 5-21.**

Regarding claims 17 and 18, Trost et al. disclose all the stated limitations, **see rejections to claims above**, since it has been held that a recitation with respect to the

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manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. **See also, Fig. 6 and col. 7, lines 34-49.**

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost et al. (5341238). Trost, as applied to claims 1, 2, 7, 8, 10, 17 and 18 above, teach all the stated limitations except a stacking sequence of Substrate / M HHH (LH)<sup>4</sup>/ ambient or Substrate / M (HL)<sup>2</sup>xH(LH)<sup>2</sup>/ ambient, or how the filter is configured to steeper the absorption characteristic edge and so square off filter performance or operate in the wavelength band 8 to 12 mm.

Regarding claims 11 and 12, it has been held "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claims 13 and 14, it has been held that the recitation that an element is "configured to" perform a function is not a positive limitation but only requires the ability

to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

***Response to Arguments***

9. Applicant's arguments filed 06 October 2003 have been fully considered but they are not persuasive.

Applicant argued, Trost specifies (col. 4, lines 30-39) layer 34 not as a metal layer but as a layer composed of an oxide semiconductor.

In response, Trost specifies (col. 4, lines 40-51) layer 34 maybe made of gold, but oxides are superior.

Applicant argued, Trost does not describe any layer as a spacer layer.

In response, any layer(s) between the metal layer and dielectric stack maybe considered a spacer layer.

Applicant argued, Trost does not discuss resonance, or a resonant wavelength in any context.

In response, it is inherent property in the structure of device as claimed.

Applicant argued, Trost is configured to prevent absorption of radiation in layer 34 rather than to deliberately induce or channel absorption as described and claimed.

In response, Trost maybe configured to prevent some absorption, but absorption still occurs.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 4009453, 4335935, 5784504, 5814416, 5874,803, 6154480, 6185241 and European Patent 0921419 all disclose a related invention.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (571) 272-1942. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (571) 272-1941. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

*CHJ*

chj

*Paul Ip*  
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